

Amendments to the Specification:

Following is a marked up version of the specification with underlining representing additions, and strikethroughs representing deletions.

Please replace the paragraph beginning at line 3 page 1, with the following:

--Background art**Field of the Invention**

The invention relates to a method of manufacture of a composite material ~~according to the introductory part of claim 1~~ having at least one layer of reinforced woven material and at least one layer of PTFE foil or ePTFE foil, a composite product ~~according to the introductory part of claim 9~~ having at least one layer of reinforced woven material and at least one layer of PTFE foil or ePTFE foil, and an apparatus for ~~performing the method according to the introductory part of claim 11~~ manufacture of a composite material having at least one layer of reinforcing woven material and at least one layer of PTFE foil or ePTFE foil--

Please replace the paragraph beginning at line 11 page 1, with the following:

--Background of the Invention

Composite products comprising a reinforcing woven material and a PTFE foil are used for many different industrial purposes. Within the chemical industry, this kind of material is, for example, used for vessels, compensators, containers, conveyor belts and chemical barriers. ~~Such objects in general that~~ must be able to resist strong chemical and thermal impacts. This is likewise also the case ~~a~~ consideration within power plants, the food industry and many other applications where reliable and strong mechanical and/or chemical properties are also important--

Please replace the paragraph beginning at line 22 page 1, with the following:

~~--In a composite material, like those discussed above, of the above kind the interactions between~~ materials in the composite will create the properties that makes the composite material suitable for a given application. Typically, the woven material will improve the mechanical properties during a thermal impact whilst the applied PTFE foil or foils will ~~constitute~~ provide barrier properties that ~~can be~~ may be maintained even under high temperatures--

Please replace the paragraph beginning at line 31 page 1, with the following:

--However, it has proven difficult to obtain a proper "balance" between the individual components of the composite material during its manufacture. This is because a composite product typically shrinks ~~relatively much~~ during the manufacturing, so that the final ~~end~~ composite product displays significantly different dimensions than those of the original laminated product. ~~This is incan be~~ a particular a problem in ~~relation to~~ the manufacture of composite products with pre-determined ~~end~~~~final~~ dimensions, ~~because~~, just as there is a tendency for the composite product, especially the edge regions, to bend or wrinkle, ~~particularly in the edge regions~~.

Please replace the paragraph beginning at line 11 page 2, with the following:

--~~Apart from the problem in itself that of the composite shrinkings or in other ways are otherwise becoming disfigured, it is also a problem that it can also be difficult to predict which dimensions the end the dimensions of the final product actually obtains.~~ This ~~can results often in that the composite product, where it is possible, make further must be machined further after the lamination machining after lamination necessary.~~ ~~This further treatment such as machining Further machining is often not possible to automate and can result results in material waste, just as it most often is not possible to carry out the further treatment of a product in an automated manner.~~

Please replace the paragraph beginning at line 22 page 2, with the following:

~~--Furthermore, it must be mentioned that the material waste as a result of the shrinkage of the material in itself is so high that it is a significant factor in the final production price. An laminated assembly to composite product of the above kind can shrink with more than 10 %. A composite product such as the above can shrink up top 10%. In such a situation, the amount of material wasted can be a significant factor in the final production price of such composites.~~ --

Please replace the paragraph beginning at line 28 page 2, with the following:

~~--One~~A way of improving the manufacturing process is by adding an extra layer of coating during lamination of the woven material and the PTFE coils to the woven material an extra layer of coating on the opposite side of the provided lamination of PTFE foils.---

Please replace the paragraph beginning at line 32 page 2, with the following:

--This solution however makes the manufacturing process more ~~expensive in itself~~expensive, results in an increased use of material, and results in ~~that thea~~ finished composite materials with ~~an~~are increased ~~in~~ thickness and weight.--

Please replace the paragraph beginning at line 9 page 3, with the following:

--~~Disclosure for the invention~~Summary of the Invention

~~By, as disclosed in claim 1, Using a method of the invention which includes to~~ cooling the composite material subsequently to a fully or partly fixed state, a composite material with an improved ~~form~~ form stability, reduced shrinkage and an enhanced E-modul~~use~~ is obtained.--

Please replace the paragraph beginning at line 16 page 3, with the following:

--By reducing the shrinkage ~~for of~~ the PTFE layer of the composite, a better form stability for the product as a whole is ~~hereby~~ obtained, since the woven material typically is very sensitive to shrinkage by lamination with a foil.--

Please replace the paragraph beginning at line 21 page 3, with the following:

--The main purposee ~~of the invention, to, that is to~~ obtain an improved form stability, is thus a very important factor in ~~connection to~~ the precision production ~~a precision produc~~e of composite products, conduit linings, compensators, conveyor belts, tank liners, containers or similar applications, where a poor form stability results in ~~that thea~~ finished product that has substantial ~~and indeterminate shrinks with a relative large and not fully determined percentage~~ age.--

Please replace the paragraph beginning at line 30 page 3, with the following:

--~~This is also the case where the~~ Composite materials ~~of the invention, in for instance~~ for use in chemical plants, ~~is~~can be combined with form stable components with known dimensions, since it can be tremendously difficult to predict the dimensions of the finished composite product.--

Please replace the paragraph beginning at line 4 page 4, with the following:

--A fixation of the composite could, for as an example, be carried out by expanding the composite in a frame, and then ~~carry out a cooling~~ the composite by the use of a gas or a liquid.

Please replace the paragraph beginning at line 8 page 4, with the following:

--~~By the invention~~ It is preferred to let the cooling take place as quickly as possible after the heating.--

Please replace the paragraph beginning at line 11 page 4, with the following:

--~~As used herein, a~~ reinforcing woven material ~~is understood for instance includes~~ glass fibre fabric, PTFE fabric, PTFE coated glass fibre fabric or other materials. However it is preferred in many applications to use glass fibre fabric. ~~By a~~ As used herein, ePTFE foil is ~~meant~~means an expanded PTFE foil.--

Please replace the paragraph beginning at line 17 page 4, with the following:

--According to the invention, ~~by fixation in full or part~~ fixation only of the composite during the cooling, ~~it is further possible to~~makes it possible to regulate or control the shrinkage of the finished product. This is of major importance in relation to products where high dimensional requirements are ~~requested of the end~~desired in the final product. PA part of the cooling process can, for example, ~~for instance~~ be carried out in a fixed state, whilst another part of the cooling process can be carried out in a non-fixed state.--

Please replace the paragraph beginning at line 27 page 4, with the following:

--It is understood that the invention can be carried out as a sub-process of a total process, since it is possible to manufacture a composite material with one added layer of foil and fabric ~~at the time~~, so that a multi-layered composite material can be manufactured by laminating one layer to the composite ~~at the time~~material at a later time--

Please replace the paragraph beginning at line 1 page 5, with the following:

--~~Besides there is achieved the significant advantage~~The composite material and methods of making it also offer a significant advantage because that the finished composite material

~~according to the invention in itself~~ exhibits a significantly reduced shrinkage of ~~the end product~~ relative to the added foils and fabrics, which means that the utilisation degree can be enhanced by at least 10 %.--

Please replace the paragraph beginning at line 8 page 5, with the following:

--Moreover, a major trimming of the edge regions can be avoided, whereby the waste of material ~~in this relation~~ is reduced.--

Please replace the paragraph beginning at line 12 page 5, with the following:

--~~By, as described in claim 2, to let~~In another embodiment, the cooling ~~is~~be carried out over a period of time of approximately 0.1 to 240 seconds from a temperature of 300 to 420 °C to a temperature of about 50 °C. Such an embodiment offers ~~an~~ advantageous and practical embodiment of the ~~invention is achieved~~invention.--

Please replace the paragraph beginning at line 18 page 5, with the following:

--It is preferred for many of the ~~used~~material thicknesses ~~used~~, that the time period is approximately 20 to 120 seconds from a temperature of 380 to 400 °C to a temperature of about 50 °C.--

Please replace the paragraph beginning at line 27 page 5, with the following:

--It should be emphasized that the cooling can be done rather quickly, whereby the combined cooling and fixation is ~~very~~ attractive in connection with automatic and continuous manufacturing processes.--

Please replace the paragraph beginning at line 32 page 5, with the following:

--It is further understood that improved results can be achieved by performing a cooling, according to the invention, over a part of a temperature interval, ~~just as~~. It is also understood that the best result, however, ~~first~~ will be achieved when cooling over the whole temperature interval, i.e. from a given high temperature to a wanted end temperature.--

Please replace the paragraph beginning at line 7 page 6, with the following:

--~~By, as described in claim 3, In yet another embodiment, to let the composite material be can be subjected to a tension during the cooling. Such an embodiment provides, an advantageous embodiment of the invention is achieved.~~--

Please replace the paragraph beginning at line 11 page 6, with the following:

--~~By, as described in claim 4, In a further embodiment, that the composite material undergoes a combined cooling and pressure operation by means for of pressure application, an advantageous embodiment of the invention is achieved, This embodiment provides an advantageous embodiment of the invention~~ since the means for pressure supply application fixates the composite material during the cooling, which results in a solid improvement of the form stability. Specifically, a particularly high E-moduluse can be achieved for in the final composite product, just as a good form stability is achievable. This means, for instance, that the shrinkage of a composite material manufactured according to the invention will be significantly reduced. In~~By~~ certain types of products the shrinkage can be reduced with by a factor of 10-15 and the E-moduluse can be enhanced by a factor of 5.--

Please replace the paragraph beginning at line 26 page 6, with the following:

--The achieved fixation by means of a for pressure supply also means that the composite can be cooled during application of a very high pressure, as the causing the composite hereby to be is fixated in a controlled manner during the entire cooling. This high cooling pressure results firstly in that the causes the form of the composite to be is maintained in its final shape during the cooling in its final shape, and secondly that also causes the cooling to takes place much more quickly across the surface. In an improved contact between the means for pressure supply and the composite thus leads to an improved mutual heat transport, whereby the cooling of the composite can be accelerated.--

Please replace the paragraph beginning at line 5 page 7, with the following:

--~~By, as described in claim 5, In yet a further embodiment, that the means for pressure supply is provided with cooling means. This embodiment provides another, a particularly advantageous embodiment of the invention is achieved, since it has been discovered that this combined cooling and pressure application results in an optimal result with respect to the produced composite~~

materials. Because first~~Firstly~~, a product with improved shrinkage properties is achieved, secondly~~and second~~, the product can be produced with a relatively uncomplicated control.--

Please replace the paragraph beginning at line 15 page 7, with the following:

--As mentioned above, an improved contact between the means for pressure supply and the composite~~thus~~ results in an improved mutual heat transfer whereby the cooling of the composite can be accelerated.--

Please replace the paragraph beginning at line 20 page 7, with the following:

~~--By, as described in claim 6~~In another embodiment, that the pressure supply is provided continuously by means for pressure supply comprising at least one roller. Such an embodiment provides~~there is established~~ a commercially advantageous possibility of providing a continuous production of a ~~form~~ stable composite material that is form stable and/or has a high E-modul~~use~~use--

Please replace the paragraph beginning at line 27 page 7, with the following:

--The production can further be carried out ~~in~~ at relatively high speeds.--

Please replace the paragraph beginning at line 30 page 7, with the following:

~~--By, as described in claim 7~~In a further embodiment, that the pressure supply is provided intermittently by means ~~for~~of a pressure supply comprising a pressure surface. Such an embodiment provides, ~~there is achieved~~ a particular advantageous embodiment of the invention, as the pressure supply applied by a pressure plate can be completely controlled in the sense that any supplementary tension in the foils or the surface direction of the composite in many applications can be totally avoided.--

Please replace the paragraph beginning at line 6 page 8, with the following:

--The pressure supply can be provided by controlling only one parameter, i.e. the pressure provided by the means for pressure supply. By using this pressure surface ~~it is avoided that the diffusion properties are influenced~~the uncontrollable influences of the ~~by~~ simultaneous tension in the foils or the composite can be avoided.--

Please replace the paragraph beginning at line 13 page 8, with the following:

--~~As a pressure surface is in this connection for instance understood a plate, Examples of pressure surfaces includes plates just as a pressure surface can be in the shape of a and forms.~~--

Please replace the paragraph beginning at line 17 page 8, with the following:

--It is preferred according to the invention to use a relatively high surface pressure, since the fixation ~~thereby~~ becomes better during the cooling. As an example, a pressure of 0.1 – 20 N/mm² can be used.--

Please replace the paragraph beginning at line 22 page 8, with the following:

--A high surface pressure on the composite material during the cooling will result in improved material properties, both with respect to the form stability and the performance. Just as shrinkage in the flow direction in the continuous process is reduced, the use of a pressure plate also holds the composite material in its longitudinal direction during the cooling, as the composite due to the use of a pressure plate also is held in its longitudinal direction during the cooling.--

Please replace the paragraph beginning at line 30 page 8, with the following:

--~~By, as described in claim 8, In even a further embodiment, that the composite material is cooled under a substantively substantially uniform pressure over the surface by a cooling surface, a possibility is achieved. Such an embodiment can to obtain a composite material having uniform shrinkage properties over the entire surface.~~--

Please replace the paragraph beginning at line 4 page 9, with the following:

--~~By, as described in claim 9, In yet another embodiment, that the product comprises at least one foil layer of PTFE or ePTFE foil and at least one layer of reinforcing woven material. Such an embodiment achieves, a product is achieved possessing a high E-moduluse and other advantageous material properties.~~--

Please replace the paragraph beginning at line 10 page 9, with the following:

--A further advantage ~~by of~~ of a composite product ~~of the~~ as mentioned above mentioned kind is that the edge properties become considerably improved considerably, as the shrinkage is a reduced shrinkage of in particular materials. For example, that consist of for instance a layer of PTFE foil laminated without the use of the teaching according to the present invention would have a tendency to curl or "wrinkle" ~~at~~ in the edges of the composite product. This disadvantage is partly equalized by the improvement of the shrinkage properties, that is less shrinkage. Similarly, just as the fixation of the composite during the cooling improves the resulting form stability overall in the product – and thereby also in the edge sections.--

Please replace the paragraph beginning at line 23 page 9, with the following:

--~~By, as described in claim 10, In a further embodiment, that the reinforcing woven material consists at least partly of glass fibre fabric or PTFE coated glass fibre fabric, a. Such an embodiment achieves particular advantageous embodiment of the invention is achieved results.~~ The invention has proven itself particularly advantageous with respect to the relatively high sensibility compared with a laminated PTFE foil. It has proven possible to produce composite products, e.g. discrete components, endless webs of the composite etc., without that the dimensions of the final products diverting substantively substantially from the original form of the composite in its non-final state.--

Please replace the paragraph beginning at line 6 page 10, with the following:

--**The drawings****Brief Description of the Drawings**

In the following, the invention is further described ~~under~~with reference to the drawings, where--

Please replace the paragraph beginning at line 15 page 10, with the following:

--**Detailed Description of the Invention****Preferred embodiment**

In figure 1 a schematic view is shown of a preferred automated embodiment according to the invention is shown.--

Please replace the paragraph beginning at line 19 page 10, with the following:

--In the ~~viewed~~this embodiment, the ~~shown~~ apparatus is fed by endless webs of PTFE foil 1 and PTFE coated glass fibre fabric 2 from a roll of PTFE foil 3 and a roll of PTFE coated glass fibre fabric 4. The finished composite 9 is wound up on a roll 10.--

Please replace the paragraph beginning at line 25 page 10, with the following:

--According to the ~~viewed~~this embodiment the webs 1 and 2 ~~perform a relative movement relative to the apparatus, and~~ ~~T~~he rollers 3, 4 and 10 are rotated by ~~not shown~~ forwarding means (not shown in fig. 1) in an intermittent movement ~~in~~ between two co-operating heated pressure surfaces 5 and 6. These pressure surfaces 5, 6 are in the shown embodiment connected to not shown hydraulic pressure- and movement means (not shown in fig. 1) and adapted to perform a relative movement to and from the two webs 1 and 2.--

Please replace the paragraph beginning at line 12 page 11, with the following:

--According to the ~~viewed~~this embodiment, the foil and the glass fabric is heated to a temperature of approx. 380°C - 400°C under a pressure of 0.1-20 N/mm².--

Please replace the paragraph beginning at line 16 page 11, with the following:

--When the lamination is completed the pressure surfaces 5, 6 are moved away from each other and the now laminated composite is moved ~~in an intermittent movement~~intermittently ~~in~~ between two co[[-]]operating pressure surfaces 7, 8, which are provided with cooling means.--

Please replace the paragraph beginning at line 21 page 11, with the following:

--The cooling means will, over a time period of 20 – 120 seconds, cool the composite to a temperature of about 50°C and applying a pressure of 0.1 – 20 N/mm².--

Please replace the paragraph beginning at line 25 page 11, with the following:

--When the lamination of the partial length is completed the pressure surfaces are moved apart and the composite web is rolled up on a roll (10).--

Please replace the paragraph beginning at line 29 page 11, with the following:

--It is understood that the above described process is a continuous process where a cooling of a partial length is carried out simultaneous with the heating of the preceding partial length.--

Please replace the paragraph beginning at line 9 page 12, with the following:

--It is ~~likewise also~~ understood that the composite ~~also~~ could ~~be made by multiple~~~~be applied a~~ multiple of laminations ~~of~~ and glass fibre fabric layers until the ~~wanted~~ ~~desired~~ thickness and the ~~wanted~~ material properties are achieved.--

Please replace the paragraph beginning at line 16 page 12, with the following:

--In the ~~shown~~this embodiment the apparatus is fed by endless webs of PTFE foil 1 and a PTFE coated glass fibre fabric 2 from a roll of PTFE foil 3 and a roll of PTFE coated glass fibre fabric 4. The finished composite 9 is wound up on a roll 10.--

Please replace the paragraph beginning at line 22 page 12, with the following:

--According to ~~the shown~~this embodiment the webs 1 and 2 ~~perform~~ a relative movement relative to the apparatus, ~~and~~Tthe rollers 3, 4 and 10, ~~are that are~~ rotated by means of ~~not shown~~ forwarding means (not shown in fig. 2) in a continuous movement in between two co-operating heated pressure surfaces in the shape of rollers 15 and 16. These rollers 15, 16 are ~~in the viewed~~ ~~embodiment~~ connected to ~~not shown~~ pressure means (not shown in fig. 2).--

Please replace the paragraph beginning at line 31 page 12, with the following:

--When the continuous movement has fed the two new partial lengths of the foil 1 and the glass fabric 2 in between the pressure rollers 15, 16, the pressure rollers are moved relative to the webs and apply a combined pressure and heat impact so that the foil 1 and the glass fibre fabric are joined together in a lamination in a continuous movement.--

Please replace the paragraph beginning at line 6 page 13, with the following:

--When the relevant part of webs have been moved away ~~of~~ from the rollers they are laminated and are forwarded in between two co-operating pressure surfaces 17, 18 that are provided with cooling means.--

Please replace the paragraph beginning at line 11 page 13, with the following:

--The cooling means will, over a time period of e.g. 0.1 seconds, cool the composite to a temperature of about 50°C whilst under pressure.--